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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): H. MIURA et al
Serial No.: 10/626,718
Filed: July 25, 2003
For: SEMICONDUCTOR MEMORY DEVICE
CONF. NO. 9680

RESPONSE TO RESTRICTION REQUIREMENT

Commissioner For Patents
POB 1450
Alexandria, VA 22313-1450

Sept. 20, 2004

Sir:

This is a reply to the outstanding Restriction Requirement, dated August 20, 2004, in which the currently pending claims 9-12 and 14-20, inclusive, have been divided into two (2), allegedly, distinct groups of claims. Based on our review of this Restriction Requirement, applicants, through their undersigned representative, are accordingly traversing the same and, therefore, reconsideration and withdrawal thereof is respectfully requested.

In reviewing the entire claimed subject matter, it is noted that claims 9-12 of Group I are drawn to a design technique which, for example, avoids undesired occurrences of dislocations, although not limited thereto, regarding the device formation region and the device isolation region in the production of the semiconductor device, and claims 14-29 of Group II are directed to the construction of the semiconductor device itself which includes providing circuit forming regions (e.g., on a device formation region) and device isolation regions on a substrate.

The device claims, according to Group II, set forth, amongst the featured aspects therein, "device isolation regions" involving the formation of grooves which require particular width and depth measurements as well as involve a ratio relationship between that of the width of a respective device isolation region to the width of the adjacently disposed circuit regions thereto (see claims 14+, 16+, 18+, 19+, 20+ and 21+). It is also observed, according to claims 18, 19, 20 and 21+, that the device claims also set forth a schemed construction which limits stress so that dislocation occurrences do not result, although not limited thereto.

The design technique for a semiconductor device according to claims 9-12, likewise, is concerned with mitigating stress so that, for example, dislocation occurrences do not result. In this regard, the design method includes conducting measurements such as thicknesses of a pad oxide film and a nitride film, the internal stress of the nitride film, as well as measurements including the width of both the device formation and isolation regions as well as conducting stress analysis, etc., and setting values related to the width of the device formation region and of the device isolation region such that dislocation occurrences do not result.

Although a case of patentable distinction can be made between that of the invention covered by the provisionally elected Group I (including claims 9-12) and that according to Group II (including claims 14-29), there is clearly, applicants submit, a substantial commonality regarding various featured aspects thereof, as was shown hereinabove, which would lead to the co-extensiveness in the state-of-the-art searching. That is, the state-of-the-art searching performed on the invention

according to the claims of either Group I or Group II would highly likely overlap the search area of the other group. Therefore, the Examiner is urged to maintain both groups of claims as a single grouping for purposes of examination.

In view of the substantial amount of claimed subject matter overlapping between the Group I and Group II claims, there would be no serious burden, it is submitted, on the part of the Examiner to maintain all of the presently pending claims as a single grouping for purposes of examination. According to USPTO policy, as set forth in *MPEP* §803,

"[I]f the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions."

Applicants would, also, be put under a serious burden in terms of both time and cost if they are required to file an additional application in order to obtain patent protection for the withdrawn claims. Accordingly, for the above-noted reasons, reconsideration and withdrawal of the formal Restriction Requirement is respectfully requested.

In view of the above supportive/rebuttal discussion, applicants, through their undersigned representative, respectfully request that the Restriction Requirement be reconsidered and accordingly withdrawn and that a formal examination as well as favorable action therefor be given on all of the currently pending claims. However, in order to be completely responsive to the outstanding Restriction Requirement, applicants provisionally elect with traverse Group I (including claims 9-12) of the outstanding Restriction Requirement to be examined on the merits.

To the extent necessary, applicants petition for an extension of time under 37

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CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Dep. Acct. No. 01-2135 (500.33045CC3), and please credit any excess fees to such deposit account.

Respectfully submitted,
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